# HEWLETT-PACKARD COMPANY

Intellectual Property Administration P. O. Box 272400 Fort Collins, Colorado 80527-2400

#### PATENT APPLICATION

ATTORNEY DOCKET NO. \_\_200403365-1

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

l-venter(a):		
Inventor(s):	Parthasarathy Ranganathan	Confirmation No.: TBD
Application	No.: TBD	Examiner: TBD
Filing Date:	Herewith	Group Art Unit: TBD
Title:	SELECTING INPUT/OUTPUT DEV	VICES TO CONTROL POWER CONSUMPTION OF A
PO Box 145		
Alexandra,	VA 22313-1450 INFORMATION DISC	CLOSURE STATEMENT
Sir:	·	
This Info	ormation Disclosure Statement is subm	nitted:
<b>(X</b> )	under 37 CFR 1.97(b), or (Within three months of filing national applica mailing date of first office action on the merits	ation; or date of entry of national application; or before s; whichever occurs last)
( )	under 37 CFR 1.97 (c) together with () Statement under 37 CFR 1.97(e) () a \$180.00 fee under 37 CFR 1.1 (After the CFR 1.97 (b) time period, but I	, or
( )	under 37 CFR 1.97 (d) together with () Statement under 37 CFR 1.97(e) () a \$180.00 fee set forth in 37 CF	(1) or (2), and
Please	charge to Deposit Account 08-2025	the sum of \$0.00 . At any time during the
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any required applicant(s)	d copies of patents, publications or o	1449 - Information Disclosure Statement together with ther information of which applicant(s) are aware, which amination of this application and for which there may be 56.
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1R	Viredaz, M. et a	al., "Energy Manag	gement	on Hanheld Devices	s", ACM	Press, 2003.		<del></del>
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